

WHAT IS CLAIMED IS:

1. A telecommunications system comprising:

a first node;

a second node;

at least one intermediate node in communication with the first node and the second node, the first node, second node and intermediate node defining a path, the first node repeatedly sending signaling through the intermediate node to the second node and receiving the signaling back to establish and maintain a connection between the first node, second node and intermediate node; and

means for dynamically placing connection points along the path through which the connection is established each time after signaling from the first node to the second node returns to the first node.

2. A system as described in Claim 1 wherein the placing means also creates fault management and performance monitoring conditions in the first, second and intermediate nodes.

3. A system as described in Claim 2 wherein the placing means includes an OAM path matrix disposed at each node which identifies the connection points and the fault management and performance monitoring conditions.

4. A system as described in Claim 3 wherein the placing means places the connection points according to the OAM path matrix based on a number of hops to the second node from the first node.

5. A system as described in Claim 4 wherein the connection is an ATM SPVX.

6. A method for forming connections in a telecommunications system comprising the steps of:

sending signaling repeatedly from a first node through an intermediate node to a second node, the first node, second node and intermediate node defining a path;

receiving the signaling back at the first node to establish and maintain a connection between the first node, second node and intermediate node; and

placing connection points dynamically along the path through which the connection is established each time after signaling from the first node to the second node returns to the first node.

7. A method as described in Claim 6 wherein the placing step includes creating fault management and performance monitoring conditions in the first, second and intermediate nodes.

8. A method as described in Claim 7 wherein the placing step includes the step of identifying the connection points and the

fault management and performance monitoring conditions with an OAM path matrix disposed at each node.

9. A method as described in Claim 8 wherein the placing step includes the step of placing the connection points according to the OAM path matrix based on a number of hops to the second node from the first node.

10. A telecommunications system comprising:

a first node;

a second node in communication with the first node and the second node, the first node and second node defining a path, the first node repeatedly sending signaling to the second node and receiving the signaling back to establish and maintain a connection between the first node and second node; and

means for dynamically placing connection points along the path through which the connection is established each time after signaling from the first node to the second node returns to the first node.